

REMARKS

Applicant calls the Examiner's attention to related application Serial No. 10/812,241 being handled by Examiner Hunter Lonsberry. Official actions from the Examiner and Applicant's response are available on the PAIR system. References in the Supplemental Information Disclosure Statement filed herewith were cited in the '241 application.

Paragraph [0026] of the specification has been amended to clarify element 36 as "data extraction section". In addition, the abstract has been amended to comply with the required word limit of 150 words, as set forth by MPEP §608.01. Entry of these amendments is respectfully requested.

With regard to the rejection of the title of the invention, Applicant submits that the amended title "Upstream Data Transmission Device for a Video System" is descriptive and clearly indicative of the invention to which the claims are directed. Neither the description nor the claims of the present application limit the invention to two-way cable TV networks. Rather, a general video system, which may include a video camera, is disclosed. Therefore, Applicant submits that the amended title is appropriate.

Claim 8 has been amended to correct minor typographical errors.

With regard to the rejection of claims 1-26 under 35 U.S.C. §112, Applicant submits that at least paragraphs [0047] and [0053] of the specification disclose how and in what sequence the switches 133 are to be operated:

[0047] ...Data window decoder 139 is coupled to switches 133a, 133b such that decoder 139 can open and close switches 133a, 133b to thereby selectively bring output 146 and input 148 into electrical communication.

[0053] Data window decoder 139 receives the video line count from video line counter 137 and controls the opening and closing of switches 133a, 133b based thereon. More particularly, if the video line count indicates that active video signals are being received by input port 130, then data window decoder 139 maintains switches 133a, 133b in their open positions so that upstream data signals do not interfere with or corrupt the active video signals. Else, if the video line count indicates that active video signals are not being received by input port 130, then data window decoder 139 may maintain switches 133a, 133b in their closed positions so that upstream data signals may reach input port 130.

Further disclosure of the operation of switches 133 is found in paragraphs [0051]-[0052]. Therefore, Applicant submits that the specification teaches one of ordinary skill in the art how to make and use the invention described in claims 1-26.

The Disclosure of the Present Application

Paragraph [0007] of the application states that "[w]hat is needed...is a bypass device for a coaxial upstream data transmission system video system that reduces the effects of noise that is introduced into the active video signal as a result of data extraction and data insertion performed by the bypass device." Paragraph [0008] states that the bypass device of the disclosure "performs the data insertion during selected windows of time such that upstream data is inserted only on the portion of the video output signal that may carry data, and not on the portion of the video output signal that may carry a video image to be displayed on a screen." In particular, paragraph [0019], referring to Fig. 2, states that the "video output signal may have a format such that the signal is divided into a plurality of fields 23...Each field 23 may have a first portion that includes an active video signal, and a second portion, such as the vertical blanking interval, that lacks an active video signal but instead includes a downstream data signal." The upstream data signals are transmitted to video source 12, 130 during the same time periods allotted to the downstream data signals, thereby reducing interference with the active video signal by the noise associated with the upstream data signals.

In the present system, a video distribution amplifier (VDA) 114 controls the transmission of the active video signals, the downstream data signals, and the upstream data signals between input port 130 and output ports 132a, 132b. Transmission of the upstream signals is illustratively described in paragraph [0044] of the present application with reference to Fig. 3 as follows:

[0044] VDA 114 includes bypass circuitry 134 for bypassing one-way amplifiers 124a, 124b to thereby allow data signals from output ports 132a, 132b to be transmitted in an upstream direction to input port 130 and to the other one of output ports 132a, 132b...More particularly, bypass circuitry 134 transmits upstream data signals from each of output ports 132a, 132b to input port 130 and to the input of the amplifier not corresponding to the output port from which the upstream data signal originates. For example, bypass circuitry 134 transmits upstream data signals from output port 132a to input port 130 and to input 126b of amplifier 124b. In the embodiment of Figure 3, bypass circuitry 134 does not transmit upstream data signals from output port 132a to input 126a of amplifier 124a, which amplifier corresponds to the output port 132a from which the upstream data signals originate. Similarly, bypass circuitry 134 transmits upstream data signals from output port 132b to input port 130 and to input 126a of amplifier 124a, but not to input 126b of amplifier 124b.

The Examiner's Rejections

The Examiner rejected claims 1-26 under 35 U.S.C. §103(a) as being unpatentable in view of U.S. Patent No. 5,760,822 to Coutinho (hereinafter "Coutinho") in view of U.S. Patent No. 6,738,098 to Hutchinson (hereinafter "Hutchinson") in further view of U.S. Patent No. 4,553,161 to Citta (hereinafter "Citta").

The Disclosure of Coutinho

Coutinho relates to a bi-directional communication system having a single coaxial cable. Communication in Coutinho between a cable provider and various terminal devices 206A, 206B, 208A, and 208B is provided by having separate frequency bands for each signal, as illustrated in Fig. 5. Frequency-shifting devices (i.e. modulator 222, high pass filters 210, 220, and low pass filters 226a, 226b) shift the upstream data signals, downstream data signals, and downstream video signals into separate fixed frequency bands so that each signal may be transmitted simultaneously without interfering with or disrupting the other signals.

The Disclosure of Hutchinson

Hutchinson relates to a video amplifier for a television receiver for aligning a video signal from an IF module with downstream circuitry. The television receiver includes a plurality of amplifiers 122, 134, 138, 146, 150.

The Disclosure of Citta

Citta relates to a synchronization system for a two-way cable television system having a cable headend 12 coupled to a subscriber terminal 10 via a single coaxial cable 15. Upstream data signals from subscriber terminal 10 to cable headend 12 are transmitted in time slots synchronized with the vertical blanking interval (VBI) of the downstream video signal.

Claim 1 is Patentable Over the Three-Way Combination of Coutinho, Hutchinson, and Citta

Independent claim 1 particularly points out and distinctly claims "a video source operable to transmit an output signal on a transmission line, the output signal having a format such that first portions of the output signal include active video signals and second portions of the output signal lack active video signals" and "a distribution device electrically connected to said transmission line and to each of said ports, said distribution device being operable to transmit each of the data signals to said video source on said transmission line only during time periods when the second portions of the output signal are being transmitted on said transmission line, said distribution device including a plurality of amplifiers".

In Coutinho, frequency-shifting devices shift the upstream data signals, downstream data signals, and downstream video signals into separate fixed frequency bands so that each signal may be transmitted simultaneously without interfering with or disrupting the other signals. See Coutinho, col. 7, lns. 39-56, Fig. 5. The Examiner admits that Coutinho does not disclose or suggest a plurality of amplifiers, first portions of an output signal which include active video

signals and second portions of an output signal which lack active video signals, or data signals which are transmitted to the video source on the transmission line during time periods when the second portions of the output signal are being transmitted on the transmission line.

Examiner relies on Citta to disclose that first portions of the output signal include active video signals and second portions of the output signal lack active video signals, and transmitting each of the data signals to said video source only during time periods when the second portions of the output signal are being transmitted on said transmission line as recited in claim 1. Examiner relies on Hutchinson to disclose a plurality of amplifiers.

Coutinho simultaneously transmits downstream signals and upstream signals by using separate frequency bands for each signal, thereby eliminating signal interference or disruption. A person of ordinary skill in the art would have no motivation or need to combine Coutinho and Citta to transmit the upstream data signals in separate frequency bands AND during time periods when the output signal lacks active video signals.

The Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.* issued by the Patent Office preclude the use of such conclusory statements in support of obviousness rejections. The Examination Guidelines state:

The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Court quoting *In re Kahn* stated that "[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *Teleflex Inc. v. KSR Int'l Co.*, 127 S.Ct. 1727, 1741.

The Examiner gives no explanation for the combination of Coutinho and Citta, but merely relies on improper conclusory statements and hindsight to combine the references and reject claim 1. After pointing out distinct, unrelated features of Coutinho, Citta and Hutchinson, the Examiner simply makes a conclusory statement that it would have been obvious to make the three-way combination of references. See page 7, lines 17 through page 8, line 2 of the Official Action.

While the *KSR* decision rejected a rigid approach to the use of the "teaching, suggestion, or motivation" (TSM) test when considering whether or not it would have been obvious to combine prior art references to produce an invention claimed, the Supreme Court did state that the TSM test remains a factor for consideration in determining whether it would have been obvious to combine the prior art references.

The Supreme Court stated:

The TSM test captures a helpful insight: A patent composed of several elements is not proved obvious merely by demonstrating that each element was, independently, known in the prior art. *KSR* at 1731.

Applicant submits that there is no motivation or suggestion in the references cited by the Examiner to combine Coutinho with Citta, as set forth by the Examiner. To the contrary, Coutinho prevents signal disruption during the simultaneous transmission of upstream and downstream signals with the use of separate frequency bands, thereby eliminating a need to transmit upstream signals during time periods when the downstream signals lack active video signals.

For at least these reasons, Applicant submits that independent claim 1 patentably defines the invention over the combination of Coutinho, Hutchinson, and Citta. Therefore, Applicant submits that independent claim 1, as well as dependent claims 2-7, are in condition for allowance. Such action is respectfully requested.

**Independent Claims 8, 16 and 24 are Also Patentable Over the Three-Way
Combination of Coutinho, Hutchinson, and Citta**

Examiner rejected independent claims 8, 16, and 24 using the same analysis as the rejection of independent claim 1 discussed above. Independent claim 8 recites "a video source operable to transmit an output signal on a transmission line, the output signal having a format such that first portions of the output signal include active video signals and second portions of the output signal lack active video signals", "a plurality of video receivers, each said receiver being operable to display images based upon the active video signals and to transmit a respective data signal on a respective one of a plurality of ports", and "a distribution device in electrical communication with said transmission line and with each of said ports, said distribution device being operable to transmit each of the data signals to said video source on said transmission line only during time periods when the second portions of the output signal are being transmitted on said transmission line, said distribution device including a plurality of active devices, each said active device being operable to transmit a respective active-device-signal to a respective one of said receivers on a respective one of said ports, each of the active-device-signals being dependent upon the output signal and upon at least one of the data signals transmitted on said transmission line from the receivers other than said respective receiver".

Independent claim 16 recites "a first port configured to be electrically connected to a video source and to receive an output signal from the video source, the output signal having a format

such that first portions of the output signal include active video signals and second portions of the output signal lack active video signals", "a plurality of second ports, each said second port being configured to be electrically connected to a respective video receiver", "a plurality of active devices, each said active device having an input and an output, each said output being electrically connected to a corresponding one of said second ports, each said input being configured to receive the output signal from the video source via said first port", and "bypass circuitry including a synchronization device operable to identify when the first portions of the output signal are received by said first port and when the second portions of the output signal are received by said first port, said bypass circuitry being operable to transmit data signals from each of said second ports to said first port and to said inputs of said active devices such that: the data signals bypass said active devices; the first portions of the output signal are received by said first port during first periods in time, the data signals are received by said first port during second periods in time, the first periods in time and the second periods in time being mutually exclusive; and the first portions of the output signal are received by said inputs of said active devices during third periods in time, the data signals are received by said inputs of said active devices during fourth periods in time, the third periods in time and the fourth periods in time being mutually exclusive".

Independent claim 24 recites "a first port configured to be electrically connected to a video source and to receive an output signal from the video source, the output signal having a format such that first portions of the output signal include active video signals and second portions of the output signal lack active video signals", "a second port configured to be electrically connected to a video receiver", "an active device having an input and an output, said output being electrically connected to said second port, said input being configured to receive the output signal from the video source via said first port", and "bypass circuitry including a synchronization device operable to identify when the first portions of the output signal are received by said first port and when the second portions of the output signal are received by said first port, said bypass circuitry being operable to transmit data signals from said second port to said first port such that: the data signals bypass said active device; and the first portions of the output signal are received by said first port during first periods in time, the data signals are received by said first port during second periods in time, the first periods in time and the second periods in time being non-overlapping".

For at least the reasons stated above with regard to claim 1, Applicant submits that independent claims 8, 16, and 24, as well as dependent claims 9-15, 17-23, and 25-26, are also in condition for allowance. Such action is respectfully requested.

Conclusion

For at least the reasons discussed above, Applicant submits that claims 1-26 are in condition for allowance. Such action is respectfully requested.

In the event that the examiner has questions related to this Amendment, or to the application in the general, the undersigned would appreciate the opportunity to address those questions in a telephone interview to expedite the prosecution of this application for all concerned.

Respectfully submitted,

BAKER & DANIELS LLP

A handwritten signature in black ink, appearing to read "Timothy E. Niednagel", is written over a horizontal line.

Timothy E. Niednagel

Reg. No. 33,266